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10/722,234	11/25/2003	David W. Herbage	A310429.1US	6684

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H. Roy Berkenstock
Wyatt, Tarrant & Combs, LLP
Suite 800
1715 Aaron Brenner Drive
Memphis, TN 38120-4367

EXAMINER

CLEMENT, MICHELLE RENEE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID W. HERBAGE

Appeal 2008-006338
Application 10/722,234
Technology Center 3600

Decided:¹ June 30, 2009

Before: LINDA E. HORNER, JOHN C. KERINS and
STEVEN D.A. McCARTHY, *Administrative Patent Judges.*

McCARTHY, *Administrative Patent Judge.*

DECISION ON APPEAL

¹ The two month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304 (2008), begins to run from the Decided Date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or the Notification Date (electronic delivery).

1 The Appellant appeals under 35 U.S.C. § 134 (2002) from the
2 Examiner's decision finally rejecting claims 44 and 46-53 under 35 U.S.C.
3 § 103(a) (2002) as being unpatentable over Becker (US 4,662,265, issued
4 May 5, 1987), Gassler (US 4,681,014, issued Jul. 21, 1987), Grosso (US
5 5,425,514, issued Jun. 20, 1995) and Finkelstein (US 3,245,318, issued Apr.
6 12, 1966); and from the final rejection of claim 54 under § 103(a) as being
7 unpatentable over Becker, Gassler, Grosso, Finkelstein and Null (US
8 4,149,166, issued Apr. 10, 1979). We have jurisdiction under 35 U.S.C.
9 § 6(b) (2002).

10 We REVERSE.

11 Claim 44 is the sole independent claim on appeal:

12
13 44. A countermeasure system for
14 vertically launching a countermeasure cartridge
15 trained only in azimuth comprising:
16 a base for supporting the system;
17 a launch tube having a central axis, the tube
18 being disposed substantially vertically on the base,
19 the tube having a zero twist longitudinal keyway
20 therein for effecting non-rotational, axial
21 movement relative thereto;
22 means for rotating the launch tube about its
23 axis for training the countermeasure in azimuth
24 while disposed on the base;
25 a countermeasure cartridge receivable within
26 the tube, having propulsion means for launching
27 the cartridge longitudinally out of the tube along
28 its axis;
29 the countermeasure cartridge having a guide
30 key cooperable with the tube longitudinal keyway
31 said guide key and said keyway being disposed for
32 interaction to effect non-rotational axial movement
33 throughout a substantial portion of the launch;

1 the countermeasure cartridge having a
2 canard disposed thereon for adjustment of the pitch
3 of the cartridge during flight after launch from the
4 tube.
5

6 The Examiner finds that Becker discloses a launch tube capable of
7 assuming a vertical orientation and of rotating, when in its vertical
8 orientation, about its own axis. (Ans. 4.) The Appellant argues that Becker
9 neither discloses nor suggests a launch tube capable of being disposed
10 substantially vertically. (Reply Br. 2-3.) Based on this argument, the
11 Appellant contends that Becker fails to disclose rotating the launch tube
12 about its axis for training a countermeasure in azimuth while disposed on a
13 base. (App. Br. 8; Reply Br. 3.) The Appellant further contends that the
14 Examiner failed to articulate reasoning with some rational underpinning
15 sufficient to support the conclusion that one of ordinary skill in the art would
16 have had reason to combine the teachings of Becker, Gassler, Grosso and
17 Finkelstein (and, in the case of clam 53, Null) to provide Becker's
18 arrangement with a launch tube capable of being disposed substantially
19 vertically. (Reply Br. 5-6.)

20 Becker discloses a vehicle mounted arrangement including support
21 bodies *1* and *2* for horizontally orienting a rotatable weapon support
22 platform *9*. (Becker, col. 2, ll. 28-41.) Becker provides this arrangement to
23 address a problem with the horizontal orientation of weapon systems which
24 are adjustable to a steep firing angle such as howitzers, anti-aircraft cannons
25 and mortars. (Becker, col. 1, ll. 7-12.) Becker teaches effecting the
26 horizontal orientation of the weapon support platform *9* by relative rotation
27 of the support bodies *1*, *2*. (Becker, col. 2, ll. 51-55.) A bearing *21c*

1 positioned between the weapon support platform 9 and the support body 1
2 permits a lateral motorized adjusting drive 28 to rotate the platform 9 about a
3 vertical axis 11. (Becker, col. 2, l. 63 – col. 3, l. 1.)

4 Becker's weapon support platform 9 mounts a weapon 5. (Becker,
5 col. 2, ll. 55-63.) Fig. 1 of Becker depicts the weapon 5 as a tube. Becker
6 describes the weapon 5 as being mounted on a trunnion bearing 35 for
7 swinging about a horizontal axis. (Becker, col. 2, ll. 55-63 and Fig. 1.) Fig.
8 1 of Becker shows the trunnion as being mounted so as to intersect the
9 vertical axis 11.

10 Becker does not expressly disclose that the weapon 5 is capable of
11 being swung into a vertical orientation. Furthermore, the mere fact that the
12 weapon 5 is capable of swinging about the axis of the trunnion 35 through
13 an unspecified arc does not imply reason to believe that the weapon 5 is
14 capable of swinging all of the way to a vertical orientation. Since Becker's
15 arrangement addresses a problem with weapon systems adjustable to fire at
16 steep firing angles but not necessarily vertically, the nature of Becker's
17 arrangement would not have provided one of ordinary skill in the art reason
18 to enable the weapon 5 to swing through a vertical orientation. Since the
19 teachings of Becker would not have disclosed a weapon 5 capable of
20 swinging into a vertical orientation or provided one of ordinary skill in the
21 art reason to enable the weapon 5 to swing through a vertical orientation,
22 Becker would not have disclosed or suggested rotating the weapon 5 about
23 its own axis when rotating the weapon support platform 9 about the vertical
24 axis 11.

25 The Examiner articulates no reasoning other than the erroneous
26 finding that Becker discloses a weapon rotatable into a vertical orientation to

1 support the conclusion that the teachings of Becker, Gassler, Grosso,
2 Finkelstein (and, in the case of claim 54, Null) would have led one having
3 ordinary skill in the art to provide Becker's arrangement with a launch tube
4 capable of being disposed substantially vertically or to provide Becker's
5 arrangement with means for rotating the launch tube about the axis of the
6 launch tube for training a countermeasure in azimuth while disposed on a
7 base. (*See* Ans. 4-6 and 7.) Therefore, the Appellant has shown that the
8 Examiner erred in rejecting claim 44 and its dependent claims 46-53 under
9 § 103(a) as being unpatentable over Becker, Gassler, Grosso and Finkelstein.
10 In addition, the Appellant has shown that the Examiner erred in rejecting
11 claim 54, which depends from claim 44, under § 103(a) as being
12 unpatentable over Becker, Gassler, Grosso, Finkelstein, and Null.

13
14 DECISION

15 We REVERSE the rejections of claims 44 and 46-54.

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17 REVERSED
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Appeal 2008-006338
Application 10/722,234

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9 H. ROY BERKENSTOCK

10 WYATT, TARRANT & COMBS, LLP

11 SUITE 800

12 1715 AARON BRENNER DRIVE

13 MEMPHIS, TN 38120-4367